Amendments to the Specification:

Please replace [p. 2, L 21 onwards] with the following amended paragraph:

Any voltage source (linear or switched, etc.), including an LDO, can be used to implement the invention, ~~sol~~ so long as the voltage source depends on a reference voltage including a decay to resolve the undesirable undershoot.

Please replace the paragraph [p. 2, L 26 onwards] with the following amended paragraph:

According to one embodiment, a method for preventing regulated supply undershoot in state retained latches of a leakage controlled system comprises the steps of:

providing a leakage control voltage source configured to supply a sleep voltage level below an active operation core voltage level and above a predetermined minimum level during a sleep mode, such that the ~~sleep~~ sleep voltage is high enough to allow logic device state retention in the leakage controlled system; and

biasing the voltage source via a reference voltage, wherein the reference voltage is provided via a charge storage device that is pre-charged to the active operation core voltage level when the system is in its active mode, such that when the system enters it sleep mode, the reference voltage slowly discharges to the sleep voltage level, and further such that when the system enters its sleep mode, the output of the voltage source goes through its transient phase and undershoots at a voltage level higher than the sleep voltage before finally settling to the sleep voltage level.